

REMARKS

Claim 4 has been canceled. Claims 1-3 are amended. Claims 1-3 are pending in the present application. Applicant reserves the right to pursue the original claims and other claims in this and other applications.

Claims 1-3 stand objected to because of certain informalities. Claims 1-3 have been editorially amended in accordance with the Examiner's suggestions. The claims as amended are in proper form. Applicant respectfully requests the withdrawal of the objection to claims 1-3.

Claim 2 stands rejected under 35 U.S.C. § 112, second paragraph. (The Office Action states that claims "2 and 3/2 are rejected under 35 U.S.C. § 112, second paragraph." It is unclear what is meant by "3/2," however, since the rejection of claim 2 is detailed, the discussion hereinafter will address the rejection of claim 2.) Applicant respectfully traverses this rejection.

Claim 2 has been amended to recite, *inter alia*, that "said optical pick-up unit is provided on said main body at an angle of 36 degrees – 108 degrees." Claim 2 recites that this angle is "between a line drawn from a rotation center of said disk tray to a rotation center of said turn table . . . and a line drawn horizontally from the rotation center of said disk tray to a front panel of the main body." In light of this amendment, Applicant believes claim 2 is in condition for immediate allowance. Applicant respectfully requests that the 35 U.S.C. § 112, second paragraph, rejection of claim 2 be withdrawn.

Claims 1-3 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,193,079 (Ko et al.) in view of U.S. Patent No. 3,774,172 (Silverman). Applicant respectfully traverses this rejection.

Claim 1, as amended, recites a disk reproducing apparatus comprising, *inter alia*, "a disk tray which is rotatably attached to said frame and has a plurality of turn tables for mounting a plurality of disks; and an optical pick-up unit for reproducing or recording

data from or in said disk.” Claim 1 further recites that “said optical pick-up unit is located between a rotation center of said disk tray and a front panel of said main body when said frame is drawn in said main body.”

Similarly, claim 3, as amended, recites a disk reproducing apparatus comprising, *inter alia*, “an optical pick-up unit . . . ; wherein said optical pick-up unit operating along with a turn table for holding and rotating each disk, is located so that a line between a rotation center of said disk tray and a rotation center of said turntable intersects a line virtually drawn perpendicularly from the rotation center of said disk tray plate to a front panel of said main body, at a rotation angle range of 36 degrees – 90 degrees.” Ko and Silverman, whether taken alone or in combination, do not teach or suggest the limitations of the claimed invention.

Ko relates to a CD changer having “a new tray feeding and locking means, in which a tray feeding pinion is integrated with a tray locking means . . . so that the tray can maximally be drawn out from the housing to replace all the five CDs.” (Col. 3, lines 5-10). According to Ko, “when the tray is retracted inside the housing of the CD changer to be in a playable state, it surely locks the tray inside the housing with the tray not being drawn out inadvertently.” (Col. 3, lines 10-14). As noted in the Office Action, Ko does not disclose an optical pick-up unit (Office Action at 4), much less one which is located between a rotation center of said disk tray and a front panel of said main body, as in the claimed invention.

There is no motivation to combine the teachings of Silverman and Ko to achieve the claimed invention. Silverman relates to an optical information storage system having a plurality of rotating disc storage media positioned with respect to a central movable arm and transducer such that the transducer can be selectively and sequentially positioned to a desired track on a desired disc in the group of discs. Silverman has an arm 22 which is rotatably mounted on a vertical post and is rotatable by means of a gear 28, pinion 29, and motor 30. A transducer 24 moves along the arm 22 and is placed in operating relation with each of the circular tracks 18, 18a. Neither Ko nor Silverman teach or suggest

modifying their inventions with the teachings of the other, nor would it be obvious to one ordinarily skilled in the art to combine the CD changer of Ko, which has a roulette (4) that rotates around a rotating axis (47) to move the five CD inserting portions such that a certain CD selection may be aligned with a pickup (col. 8, lines 6-39; figs. 4 and 8), with the invention of Silverman, which has one or more movable arms for contacting one or more discs (col. 1, lines 52-60). Since the teachings of Silverman would require complicated mechanisms such as rotation arms 22 and transducers 24, the teachings of Silverman would not be combinable with the teachings of Ko, with a retractable CD tray.

Moreover, even assuming, *arguendo*, that the teachings of Ko could be combined with Silverman (which they are not), the references do not teach or suggest all the limitations of the claimed invention. As mentioned above, Ko is silent on providing an optical pick-up unit located between a rotation center of said disk tray and a front panel of said main body, as in the claimed invention. Even in light of conventional CD changers that include an optical pick-up unit (see, for example, Japanese Patent Laid-Open Publication No. Hei 7-43869), the CD changer of Ko is constructed such that an optical pick-up unit would be installed on the rear of the main body. Thus Ko, if it included an optical pick-up unit, would require a longer period of time to reproduce a disk on the disk tray, because the disk would need to be transported to the optical pick-up unit at the rear of the main body.

Silverman cannot cure this deficiency. Silverman does not teach or suggest an “optical pick-up unit . . . , wherein said optical pick-up unit *is located between a rotation center of said disk tray and a front panel of said main body*,” as recited in claim 1 (emphasis added). Instead, Silverman teaches a transducer 24 mounted along an arm 22 which is rotatably mounted on a vertical post or shaft 20, such that the transducer 24 *can be moved*. Furthermore, as mentioned above, Silverman requires complicated mechanisms such as the rotation arm 22, which in turn increases the scale and complicates the CD changer’s structure. Thus, Silverman does not disclose the limitations of claim 1.


Similarly, claim 2 recites that an optical pick-up unit is provided near the front panel of the main body. Specifically, claim 2 places the optical pick-up unit at 36 to 108 degree angle from a line drawn between the rotation center of said disk tray to a front panel of the main body. Likewise, claim 3 recites that the optical pick-up unit is at a rotation angle range of 36 to 90 degrees from a line virtually drawn perpendicularly from the rotation center of said disk tray plate to a front panel of said main body.

Thus, the claimed invention provides an optical pick-up unit closer to the front of the main body so that the apparatus is not as large and does not have as many complicated mechanisms as Silverman. Additionally, the claimed invention requires less time to transfer a disk to the recording or reproducing position of the optical pick-up unit than the conventional apparatus of Ko. Since Ko and Silverman do not teach or suggest all the claim limitations of claims 1-3, and since there is no motivation to combine Ko and Silverman, the subject matter of claims 1-3 would not have been obvious over these references. Applicant respectfully requests that the 35 U.S.C. § 103(a) rejection of claims 1-3 be withdrawn.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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Respectfully submitted,

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Attachments

ANNOTATED SHEETS SHOWING CHANGES

(Annotated Sheet 1 of 4)

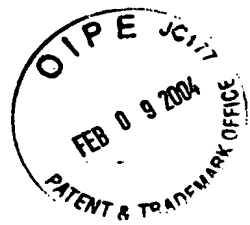
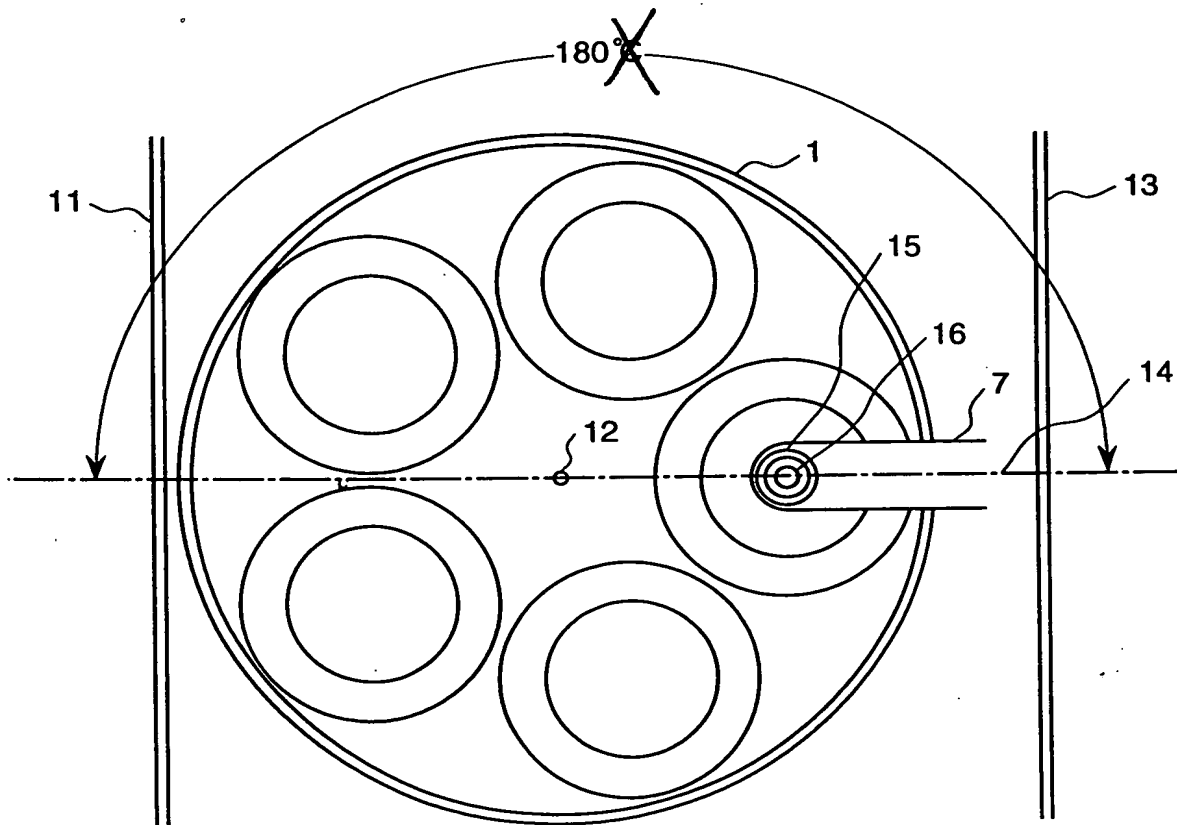


FIG. 3



(Annotated Sheet 2 of 4)

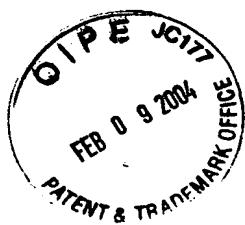
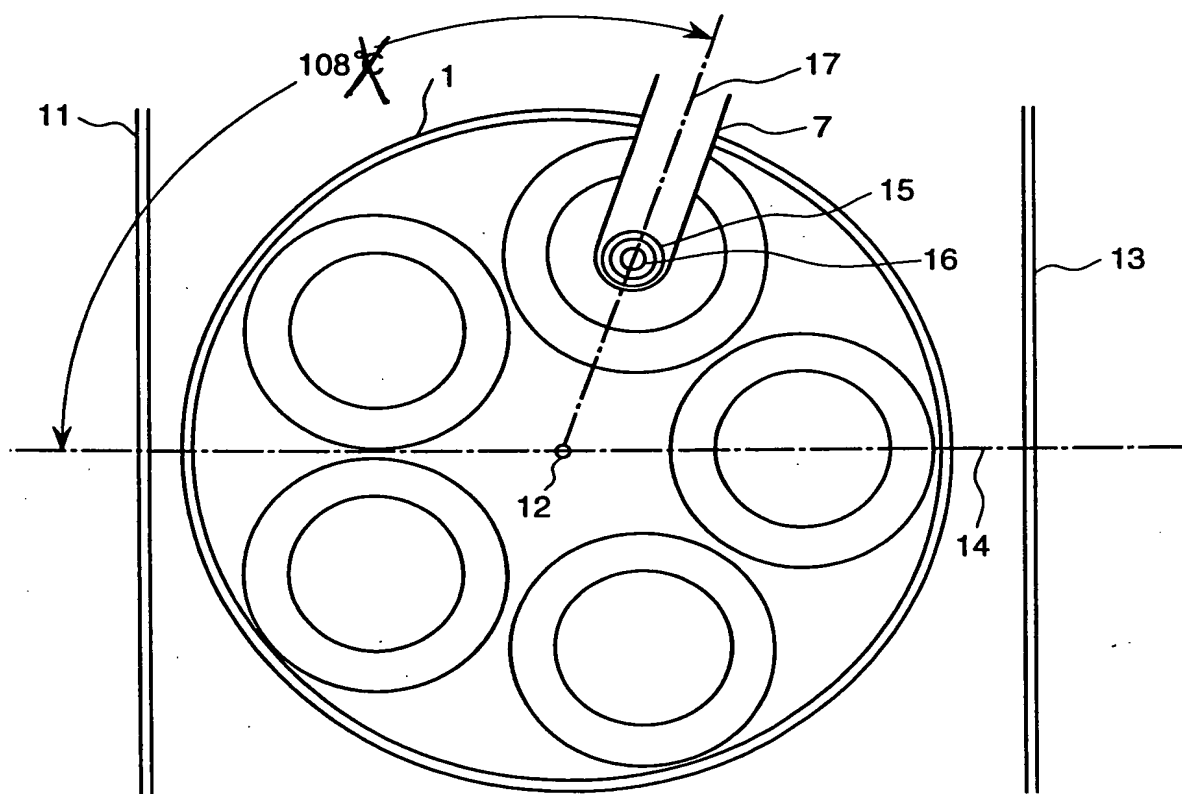


FIG. 4



(Annotated Sheet 3 of 4)

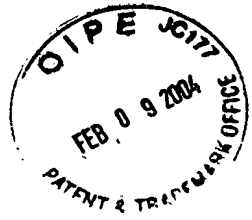
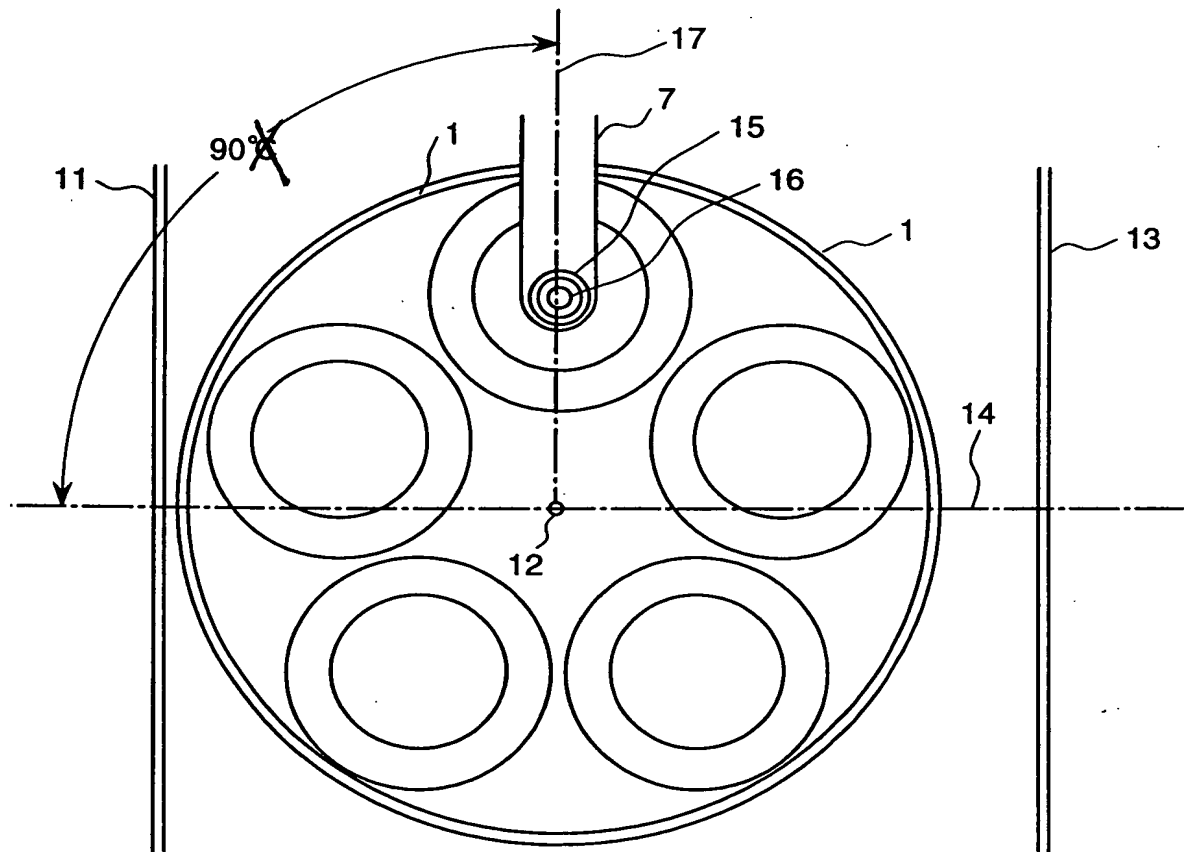


FIG. 5



(Annotated Sheet 4 of 4)



FIG. 6

